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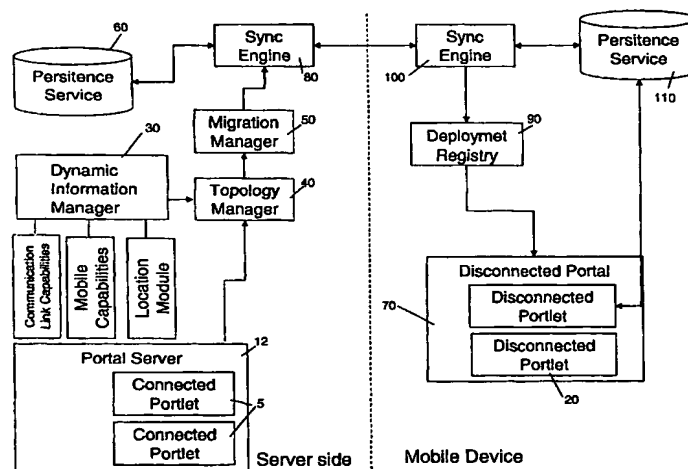
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[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR USING PORTALS BY MOBILE DEVICES IN A DISCONNECTED MODE



(57) Abstract: The present invention provides a method and system for allowing use of a Portal by Mobile Devices in a disconnected mode. The inventive system and method provide means to automatically create a Mobile Device specific content topology at the server side based on an existing user-defined connected content topology, user selectable options as well as dynamically changeable technical parameters, e.g. bandwidth, time, location, type of the target Mobile Device, downloads this Mobile Device specific content topology including its associated data to a target Mobile Device, and uses that Mobile Device specific content topology with its data by a local disconnected Portal frame work of a target Mobile Device in a disconnected mode. The Mobile Device specific content topology will be updated by a synchronization mechanism during connected mode.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/11395

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F17/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/083132 A1 (HOLLAND IAN MICHAEL ET AL) 27 June 2002 (2002-06-27) paragraph '0003! - paragraph '0006! paragraph '0013! - paragraph '0015! paragraph '0018! paragraph '0043! - paragraph '0063!; figures 4a-7	1-15, 17-26
X	BEVIS D AND PATTERSON L: "Extending enterprise applications to mobile users." INTERNET ARTICLE. IBM WEBSHERE EVERYPLACE ACCESS WHITE PAPER, 'Online! July 2002 (2002-07), XP002282228 Retrieved from the Internet: URL: http://www-900.ibm.com/cn/software/web/sphere/products/download/whitepapers/PVC_WP.pdf > 'retrieved on 2004-05-26! page 4 - page 15	1-15, 17-26

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- *A* document defining the general state of the art which is not considered to be of particular relevance
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- *Z* document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

 International Application No
 PCT/EP 03/11395

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	INTERNATIONAL BUSINESS MACHINES CORPORATION: "WebSphere EveryPlace Access InfoCenter Version 4.2.0" INTERNET ARTICLE. IBM WEBSHERE EVERYPLACE ACCESS LIBRARY, 'Online! October 2002 (2002-10), XP002282229 Retrieved from the Internet: URL:http://publib.boulder.ibm.com/pvc/wea/ 42/en/InfoCenter/wea_en.pdf> 'retrieved on 2004-05-25! Device Manager Mobile Client Technology Portal Enhancements * pages 101-117* Transcoding Technology * pages 133-163* the whole document	1-15, 17-26
X	INTERNATIONAL BUSINESS MACHINES CORPORATION: "Portal cooperative disconnected client" RESEARCH DISCLOSURE, KENNETH MASON PUBLICATIONS, HAMPSHIRE, GB, vol. 461, no. 168, September 2002 (2002-09), XP007131282 ISSN: 0374-4353 the whole document	1-15, 17-26
X	TAN R: "End-to-end Mobile Enterprise Information Systems Solutions with IBM WebSphere Products" INTERNET ARTICLE. IBM WEBSHERE DEVELOPER TECHNICAL JOURNAL, 'Online! 11 September 2002 (2002-09-11), XP002282230 Retrieved from the Internet: URL:http://www-106.ibm.com/developerworks/ websphere/techjournal/0209_tan/tan.html> 'retrieved on 2004-05-26! page 8 - page 10	1-15, 17-26
A	WO 01/18688 A (GRAY MICHAEL ROBERT ; KLOBA DAVID DOUGLAS (US); UPSON LINUS MICHAEL (U) 15 March 2001 (2001-03-15) page 5, line 10 - page 15, line 22; figure 1A page 18, line 11 - page 22, line 9 page 24, line 1 - page 29, line 5; figures 1C,2 page 40, line 20 - page 43, line 15; figure 1K	1-15, 17-26

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/11395

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>BACKWEB TECHNOLOGIES LTD: "BackWeb ProactivePortal Server"</p> <p>INTERNET ARTICLE. WHITE PAPER., 'Online! December 2001 (2001-12), XP002282231</p> <p>Retrieved from the Internet: URL:http://datawarehouse.com/iknowledge/whitepapers/wid449.pdf></p> <p>'retrieved on 2004-05-26!</p> <p>page 1 - page 10</p>	1-15, 17-26
A	<p>LEI H ET AL: "DataX: an approach to ubiquitous database access"</p> <p>MOBILE COMPUTING SYSTEMS AND APPLICATIONS, 1999. PROCEEDINGS. WMCSA '99. SECOND IEEE WORKSHOP ON NEW ORLEANS, LA, USA 25-26 FEB. 1999, LOS ALAMITOS, CA, USA, IEEE COMPUT. SOC, US, 25 February 1999 (1999-02-25), pages 70-79, XP010323393</p> <p>ISBN: 0-7695-0025-0</p> <p>the whole document</p>	1-15, 17-26
A	<p>HELAL S ET AL: "A three-tier architecture for ubiquitous data access"</p> <p>COMPUTER SYSTEMS AND APPLICATIONS, ACS/IEEE INTERNATIONAL CONFERENCE ON. 2001 BEIRUT, LEBANON 25-29 JUNE 2001, LOS ALAMITOS, CA, USA, IEEE COMPUT. SOC, US, 25 June 2001 (2001-06-25), pages 177-180, XP010551207</p> <p>ISBN: 0-7695-1165-1</p> <p>the whole document</p>	1-15, 17-26

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP 03/11395

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 16
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 16

Claim 16 is missing

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP 03/11395

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
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